

CLAIMS

What is claimed is:

1. A method for manufacturing a bumper beam extension for providing crush
5 resistance for a bumper beam using blow molding techniques, wherein the method comprises the steps of:

selecting a multi-part die with a cavity having an initial volume which corresponds to predetermined general outer contours of the bumper beam extension;

injecting a fixed amount of material into the cavity of the die;

- 10 injecting a gas to expand the material to the predetermined general outer contours of the bumper beam extension formed by the die cavity, wherein the predetermined general outer contours include an insert end and a main body portion;

closing selected sections of the multi-part die, while the material is malleable, to form a bight section joining an upper wing and a lower wing of a main body section,
15 wherein the bight section tapers from a preselected distance from a forward wall of the main body portion until it is face to face with the forward wall; and

opening the multi-part die when the bumper beam extension is substantially rigid.

2. The method of claim 1, wherein the insert end is formed to be frictionally secured to the bumper beam.

- 20 3. The method of claim 1, wherein the insert end is formed to provide an interference fit with the bumper beam.

4. The method of claim 1, wherein the insert end is formed to be secured to the bumper beam by a positive attachment.

5. The method of claim 1, further including welding the bumper beam to a frame
25 of a vehicle.